

M E M O R A N D U M

TO: DIVISION OF WATER POLLUTION CONTROL - SURVEILLANCE SECTION

FROM: Armen Asaturians - Saline Sub-Unit
Acid Mine Drainage Strike Force

SUBJECT: PERRY COUNTY -- Fidelity Mine
United Electric Coal Company
Water Pollution (Mine Waste)
Complaint

DATE: April 5, 1973

RECEIVED
SURVEILLANCE SECTION

MAY 11 1973

ENVIRONMENTAL PROTECTION AGENCY
STATE OF ILLINOIS

On the above date, while conducting a survey of the mines in Perry County, I stopped at Mr. Charles Obertini's residence to discuss a fish kill in his pond which occurred in early November, 1972. A complaint was registered with the Big Muddy Sub-Unit and was investigated by their field personnel. Acid mine waste was mentioned as one probable cause of the fish kill, however, without any substantiation.

Mr. Obertini mentioned that on November 9, 1972, at about 2:30 p.m., he called the Big Muddy Sub-Unit to inform them of a fish kill. He stated that earlier in the morning he had gone to Murphysboro and contacted the Department of Conservation and they, in turn, had referred him to the EPA office. Mr. Obertini stated that he was informed that none of the personnel in the Big Muddy Sub-Unit were in; therefore, the fish kill could not be investigated until the following Monday. Mr. Obertini said that on November 8 he noticed that the fish appeared to be in distress and were coming to the surface and that they were gradually dying off and were all practically dead on November 9.

I told Mr. Obertini that since mine waste had been mentioned as one probable cause of the fish kill I had investigated Six Mile Creek, upstream from his pond, and found the water to be of good quality and had noticed aquatic life, vegetation, frogs, and turtles at every spot checked. It should be noted that Six Mile Creek flows parallel to strip mined land which has been stripped several years ago. There are no active mining operations within Six Mile Creek watershed at the present time. The pits in that area were checked to have good water and aquatic life. Mr. Obertini said that he did not think the cause of the fish kill was acid mine drainage because he has been in the mining area all of his life and he knew what mine waste looked like. He further said that he has owned that pond for four years and if mine waste was killing the fish, it would have occurred in the past years, also. He stated that if and when some of the mine pits overflow, they do bring live fish to his pond. Then, I asked him if there had been any heavy rainfalls just prior to his observation of the fish kill. He stated that there was no heavy rainfall just prior to the fish kill. I checked the U. S. Department of Commerce National Climatic Services records and found that the official rainfall record for DuQuoin shows .6" of rain for Monday, November 6; 0" for Tuesday, November 7; 0" for Wednesday, November 8; and 0" for Thursday, November 9.



I then asked Mr. Obertini if he remembered any peculiar difference or unusual situation in his pond during the fish kill. I specifically mentioned that any unusual discoloration, for instance, or substances noted in the water would be of some help and would give us some clues. He stated that he distinctly remembers, and his wife confirmed this, that there was an oily substance all over the lake in big patches. He said that he did not observe the oily substance covering the entire surface but it was in various areas over the pond. NOTE: It is possible that some oil got on top of the pond; and, at that time, the water, according to Mr. Obertini, was not too deep and the fish could have suffocated from lack of oxygen.

I then asked Mr. Obertini if there had been any chemical or herbicide or pesticide application in the vicinity and watershed of his pond prior to the fish kill, which he was aware of. He stated that he was not aware of any such application in the vicinity of the fish kill, but he mentioned that a few months prior to that, the power company helicopter had flown over the pond spraying chemicals over the power lines which parallel the west edge of his pond in order to kill the vegetation which was growing under the power lines. I then asked Mr. Obertini if he thought someone could have purposely poisoned his pond. He first said that he could not think of anyone who would want to do that but then his wife reminded him that just a few days, that is, the weekend before the fish kill, they had a big argument with their neighbor with regard to fishing privileges and that they had not had good relations with the neighbors since that time. He mentioned that it is possible that the neighbor could have poisoned his pond. I told him that I did not want to suggest anything but I just wanted to check any and every possibility.

I then asked Mr. Obertini if he had seen any fish in his pond after the fish kill. He said that he had not noticed any but he had seen a small, dead catfish the day before. I asked him if we could approach the pond closer and take a look at it; and we did. I showed him to his amazement, hundreds of minnows in the pond. He said that he could not believe it, and he had not noticed them before.

We had just finished talking about the minnows, when we heard a fish hit the surface several yards north from where we were standing. The fish hit the surface a few seconds later and indicated the good condition of the pond for supporting fish life. Both Mr. Obertini and I, as fishermen, concluded that the amount of the splash must have been associated with a relatively good sized bass. Mr. Obertini also indicated that he has seen muskrats or beavers in that pond during the last few days.

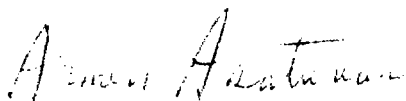
Mr. Obertini then said that on November 16 Gary Bullock of the Big Muddy Sub-Unit had collected some samples from the pond and asked me if I knew anything about the results of those samples. I told him that I had not seen the results.

On this day, I also collected a sample of Six Mile Creek at the east-west public road bridge, near the middle of Section 30, T6S, R1W, upstream from Mr. Obertini's pond. The water was clear and flow was moderate. I observed turtles and vegetation in the stream. Field pH was 6.8 and the sample had the following analysis:

LAB NO. A105151

pH	7.5
Iron (Total)	0.6 mg/l
Manganese	0.3 mg/l
Sulfate	620 mg/l
TS/EC	940 mg/l
Hardness	560 mg/l
Alkalinity	44 mg/l
Total Acidity	0 mg/l

The above is for your information.



Armen Asaturians
Environmental Protection Engineer

AA:cw

05-08-73

cc: K. L. Baumann
Big Muddy Sub-Unit